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EXAMINER

BLECK, CAROLYN M

ART UNIT PAPER NUMBER

3626

DATE MAILED: 05/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/635,911	PRASAD ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Carolyn M Bleck	3626	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 February 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-34 and 36-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-34 and 36-49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>25 February 2005</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Notice to Applicant***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 22 February 2005 has been entered.
2. This communication is in response to the RCE filed 22 February 2005. Claims 1-34 and 36-49 are pending. Claim 35 is cancelled. Claims 1, 36, 48, and 49 have been amended.

### ***Claim Rejections - 35 USC § 101***

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1-34 and 36-49 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The basis of this rejection is set forth in a two-prong test of:

- (1) whether the invention is within the technological arts; and
- (2) whether the invention produces a useful, concrete, and tangible result.

(A) For a claimed invention to be statutory, the claimed invention must be within the technological arts. Mere ideas in the abstract (i.e., abstract idea, law of nature, natural phenomena) that do not apply, involve, use, or advance the technological arts fail to promote the “progress of science and the useful arts” (i.e., the physical sciences as opposed to social sciences, for example), and therefore are found to be non-statutory subject matter. For a process claim to pass muster, the process must somehow apply, involve, use, or advance the technological arts.

In the present case, claim 1 recites “in a computer system” in the preamble. As to technological arts recited in the preamble, mere recitation in the preamble (i.e., intended or field of use) or mere implication of employing a machine or article of manufacture to perform some or all of the recited steps does not confer statutory subject matter to an otherwise abstract idea unless there is positive recitation in the claim as a whole to breathe life and meaning into the preamble. In the present case, none of the recited steps are directed to anything in the technological arts as explained above with the exception of the recitation in the preamble of “in a computer system”. Looking at the claim as a whole, nothing in the body of the claim recites any structure or functionality to suggest that a computer performs the recited steps. Therefore, the preamble is taken to merely recite a field of use.

(B) Similar analysis can be applied to independent claims 48 and 49. Therefore those claims are rejected for the same reasons as claim 1.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 48-49 are rejected under 35 U.S.C. 102(e) as being anticipated by Whiting-O'Keefe.

(A) As per claim 48, Whiting-O'Keefe disclosed a computer-based method for estimating the likely charges (expenditure of resources) for treating a given patient comprising:

(a) inputting data for patients, wherein data includes insurance reimbursement forms (reads on "healthcare use claims") (Fig. 2, col. 7 lines 34-52, col. 14 lines 12-24);

(b) estimating the charges for treating an illness using multiple linear regression, wherein the act of estimating comprises estimating a burden of illness for each patient (Abstract; Fig. 8, col. 2 lines 22-30, col. 13 line 52 to col. 14 line 67); and

(c) using the values to estimate the likely charges (expenditure of resources) for treating a given patient (Abstract; col. 2 lines 22-30, col. 13 line 52 to col. 14 line 67).

(B) As per claim 49, Whiting-O'Keefe disclosed a computer-based method for estimating the likely charges (expenditure of resources) for treating a given patient comprising:

(a) inputting data for patients, wherein data includes insurance reimbursement forms (reads on "healthcare use claims") (Fig. 2, col. 7 lines 34-52, col. 14 lines 12-24);

(b) estimating the charges for treating an illness using multiple linear regression, wherein the act of estimating comprises estimating a burden of illness for each patient based on the forms and other variables to calculate the charges (Abstract; Fig. 8, col. 2 lines 22-30, col. 13 line 52 to col. 14 line 67); and

(c) using the values to estimate the likely charges (expenditure of resources) for treating a given patient in order to improve the efficiency of the healthcare provider (Abstract; col. 1 line 55 to col. 2 line 8, col. 2 lines 22-30, col. 13 line 52 to col. 14 line 67).

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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8. Claims 1-21, 23-32, 36-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wong et al. (5,976,082) in view of Simpson (6,266,645).

(A) As per claim 1, Wong discloses a computer-based method for generating a model of adverse health outcomes resulting in substantial use of health care resources (e.g., funds), wherein the model is based on an events window (reads on "base period") and generated by extracting health care claims of benefit providers for reimbursement, wherein the model predicts use of health care resources for a prediction region (reads on "target period") (Figures 2-3, 6A-6B, Abstract, col. 4 line 60 to col. 5 line 40, col. 5 line 50 to col. 6 line 32):

(a) calculating the value of independent variables which represent potential predictors of adverse health outcomes, thus resulting in substantial use of health care resources (e.g., funds), wherein the independent variables include age, gender, HMO membership, site of first CHF diagnosis (site code), ischemic heart disease, diabetes, adverse lifestyle diagnoses, number of Co-Morbid diseases, number of ACE inhibitor prescriptions, number of physician office visits, total costs (in-patient hospital costs, emergency room costs, doctor costs, and pharmacy costs), wherein the some of the independent variables range from 0-X, wherein the values of the independent variables are based on health care claims of patients (Figures 2-5, col. 4 line 60 to col. 5 line 65, col. 7 line 21 to col. 8 line 22, col. 12 line 23 to col. 13 line 50, col. 14 line 59 to col. 15 line 13, col. 17 line 49 to col. 18 line 50) (It is noted the independent variables listed at col. 12 in Table 1 are used as predictors in the prediction model

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$\text{Logit}(p) = a + bx_1 + cx_2 \dots z_{xi}$  (see col. 14 line 59 to col. 15 line 13) to calculate the value of  $\text{Logit}(p)$  (reads on "burden of illness is a number")); and

(b) calculating an individual's probability ( $p$ ) for the outcome under consideration, such as predicting an adverse health outcome, wherein the calculation is based on the value of  $\text{Logit}(p)$  using the independent variables as discussed in part (a), wherein the  $p = e^{-\text{Logit}(p)} / (1 + e^{-\text{Logit}(p)})$  (Figures 2-5, col. 4 line 60 to col. 5 line 65, col. 7 line 21 to col. 8 line 22, col. 12 line 23 to col. 13 line 50, col. 14 line 59 to col. 15 line 13, col. 17 line 49 to col. 18 line 50).

Wong discloses the variables in the model for prediction including those which best reflect a correlation to adverse health outcomes, consequently, resulting in substantial use of healthcare resources (e.g. funds) (col. 5 lines 18-25).

It appears Wong calculates scores for members of a health plan, but does not calculate scores for each members of a health plan (see col. 2 lines 48-55). Simpson discloses calculating scores for each of a plurality of members in a health plan. See a large data set of discharge records for those with and without a particular disease. The patients are part of health care plans (see reimbursement) (col. 6 lines 1-63, col. 16 line 31 to col. 17 line 15).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Simpson within the method of Wong with the motivation of providing more efficient management of sick patients or those requiring more care (Simpson, col. 1 lines 32-54).



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(B) As per claims 2-4, Wong discloses using claims from doctors, hospitals, and pharmacies (Figures 2-5, col. 3 lines 49-56, col. 5 lines 55-65).

(C) As per claim 5, Wong discloses performing preprocessing steps including processing, based on predetermined criteria, the patient information in the claims database to extract claims information for a group of patients, wherein the criteria includes extracting patients having been diagnoses with congestive heart failure or prescribed an anti-CHF drug, wherein the patient information extracted is used in generating the prediction model and calculating the individual's probability ( $p$ ) for the outcome under consideration, wherein the model is based on an events window (reads on "base period") and generated by extracting health care claims of benefit providers for reimbursement from the events window time interval (reads on "target period"), wherein the model predicts use of health care resources for a prediction region based on the time interval (Figures 1A, 2-5, col. 3 line 60 to col. 4 line 33, col. 6 line 64 to col. 7 line 64, col. 13 line 47 to col. 14 line 59, col. 17 line 49 to col. 18 line 50).

(D) As per claim 6, Wong discloses cleaning data and performing quality checks by using threshold values to check whether an imbalance exists in the data, whether claims need to be rejected, or if multiple claims exist (col. 3 line 40 to col. 4 line 44, col. 6 lines 32-45, col. 8 lines 23-35).

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(E) As per claim 7, Wong discloses assigning prescribed medications including the drug codes into drug therapeutic classes (Figures 2-5, col. 7 lines 37-47, col. 11 lines 14-68).

(F) As per claim 8, Wong fails to expressly disclose using GC3 therapeutic pharmacy classes. However, Wong discloses assigning prescribed medications including the drug codes into drug therapeutic classes, specifically DM therapeutic class codes (Figures 2-5, col. 7 lines 37-47, col. 11 lines 14-68, Appendix III). It is respectfully submitted that the skilled artisan could use another form of classes other than DM class codes as disclosed by Wong. The motivation being to provide a flexible coding system when generating models thus increasing the usefulness of the models.

(G) As per claim 9, Wong discloses multiplying each of the independent variables, such as ischemic heart disease, cardiac dysrhythmias, hypertensive disease, number of co-morbid diseases, number of CHF hospitalizations, number of CHF emergency services, number of physician office visits, number of ACE inhibitor prescriptions, number of digoxin prescriptions (reads on "therapeutic pharmacy classes"), and number of loop diuretic prescriptions, by a parameter estimate and then summing the independent variables times the parameter estimates to calculate a value (reads on "burden of illness") (col. 12 line 46 to col. 13 line 50, col. 14 line 49 to col. 15 line 33).

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(H) As per claim 10, Wong discloses multiplying each of the independent variables, such as ischemic heart disease, cardiac dysrhythmias, hypertensive disease, number of co-morbid diseases, number of CHF hospitalizations, number of CHF emergency services, number of physician office visits, number of ACE inhibitor prescriptions, number of digoxin prescriptions (reads on “therapeutic pharmacy classes”), and number of loop diuretic prescriptions, by a parameter estimate and then summing the independent variables times the parameter estimates to calculate a value (reads on “burden of illness”) (col. 12 line 46 to col. 13 line 50, col. 14 line 49 to col. 15 line 33).

Wong fails to expressly disclose summing a plurality of weights corresponding to relevant combinations of therapeutic pharmacy classes present for the member.

However, it is respectfully submitted that when generating models typically the interactions of different variables are examined, and the skilled artisan would have found it an obvious modification to the method of Wong to include combinations of therapeutic pharmacy classes with the motivation of providing the most accurate model for the prediction of adverse health outcomes (Wong; col. 12 lines 27-31).

(I) As per claims 11 and 14, Wong discloses assigning diseases having ICD-9 codes into a plurality of sub classes (col. 9 line 45 to col. 10 line 31) and summing the independent variables or values for the sub classes multiplied by the parameter estimates to calculate a value (reads on “burden of illness”) (col. 12 line 46 to col. 13 line 50, col. 14 line 49 to col. 15 line 33).

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(J) As per claims 12-13, Wong discloses using ICD-9 codes and therapeutic classes to assign diseases into appropriate subclasses (col. 6 lines 17-32, col. 9 lines 43-63).

Although Wong fails to expressly recite CCG classes or categories, it is respectfully submitted that the skilled artisan could use another form of classes other than ICD-9 class codes as disclosed by Wong. The motivation being to provide a flexible coding system when generating models thus increasing the usefulness of the models.

(K) As per claim 15, Wong discloses the parameter estimates including the total costs, in-patient hospital costs, emergency room costs, doctor costs, cardiovascular costs, and CHF costs, wherein the costs are associated with an ICD-9 code (col. 12 line 46 to col. 13 line 50, col. 14 line 49 to col. 15 line 33).

(L) As per claim 16, Wong discloses assigning claims having ICD-9 codes and a site code into a plurality of sub classes, wherein the site codes include codes for determining whether a claim was an ER visit, Office Visit, or Hospitalization, and wherein the ICD-9 codes include descriptions such as acute myocardial infarction and angina pectoris (reads on "medical episode") (Figures 2-5, col. 7 lines 37-47, col. 9 line 5 to col. 10 line 31).

(M) As per claim 17, Wong fails to expressly disclose Clinical Care Groups. However, Wong suggests using sub-classes (col. 9 lines 50-61). It is respectfully submitted that using a specific grouping (i.e. Clinical Care Groups) is another form of grouping. The

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skilled artisan would have it obvious to include another grouping schema within the method of Wong. The motivation being to provide a flexible grouping system when generating models thus increasing the usefulness of the models.

(N) As per claim 18, assigning pharmacy claims to a sub class based on the medical claims (Figures 2-5, col. 7 lines 37-47, col. 9 line 5 to col. 10 line 31).

(O) Claim 19 repeats the same limitations as claim 4, and is therefore rejected for the same reasons given for claim 4, and incorporated herein.

(P) As per claim 20, Wong discloses multiplying each of the independent variables, such as ischemic heart disease, cardiac dysrhythmias, hypertensive disease, number of co-morbid diseases, number of CHF hospitalizations, number of CHF emergency services, number of physician office visits, by a parameter estimate and then summing the independent variables times the parameter estimates to calculate a value (col. 12 line 46 to col. 13 line 50, col. 14 line 49 to col. 15 line 33).

(Q) As per claim 21, Wong discloses the parameter estimates including a parameter estimate based on the number of co-morbid diseases found in the claims (col. 12 line 46 to col. 13 line 50, col. 14 line 49 to col. 15 line 33).

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(R) As per claim 23, Wong discloses the parameter estimates including a parameter estimate based on the age of the member found in the claims (col. 12 line 46 to col. 13 line 50, col. 14 line 49 to col. 15 line 33).

(S) As per claim 24, Wong discloses the parameter estimates including a parameter estimate based on the gender of the member found in the claims (col. 12 line 46 to col. 13 line 50, col. 14 line 49 to col. 15 line 33).

(T) As per claims 25-26, Wong discloses a parameter estimate relating to the cost of in-patient hospital costs, emergency room costs, doctor costs, and pharmacy costs (col. 12 line 46 to col. 13 line 50, col. 14 line 49 to col. 15 line 33).

(U) As per claim 27, Wong discloses an independent variable being the age of the patient based on the claims for the patient (col. 12 line 46 to col. 13 line 50, col. 14 line 49 to col. 15 line 33).

(V) As per claim 28, Wong discloses an independent variable being the gender of the patient based on the claims for the patient (col. 12 line 46 to col. 13 line 50, col. 14 line 49 to col. 15 line 33).

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(W) As per claim 29, Wong discloses an independent variable relating to a particular diagnosis, namely, congestive heart failure (col. 7 lines 20-30, col. 12 line 46 to col. 13 line 50, col. 14 line 49 to col. 15 line 33).

(X) As per claim 30, Wong discloses an independent variable being the number of ACE inhibitor prescriptions, number of digoxin prescriptions, number of loop diuretic prescriptions, and number of other CV prescriptions based on the claims for the patient (col. 12 line 46 to col. 13 line 50, col. 14 line 49 to col. 15 line 33).

(Y) As per claims 31-32, Wong discloses independent variables relating to the number of office visits, hospitalizations, and ER visits and total costs (in-patient hospital costs, emergency room costs, doctor costs, and pharmacy costs) (Figure 4, col. 12 line 46 to col. 13 line 50, col. 14 line 49 to col. 15 line 33). It is noted that tracking the numbers for visits from claims is a form of "recency of claims for the member".

(Z) Claim 36 repeats the same limitations as claim 3, and is therefore rejected for the same reasons given for claim 3, and incorporated herein.

(AA) As per claim 37, Wong discloses identifying patients having a high risk of an adverse health outcome such as the top 5% or 10% of the patients (col. 15 lines 40-55).

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(BB) As per claim 38, Wong discloses using claims from doctors, hospitals, and pharmacies (Figures 2-5, col. 3 lines 49-56, col. 5 lines 55-65). Although Wong does not expressly disclose calculating a second score based on information in both the pharmacy claims and the medical claims, it is respectfully submitted that using both sets of claims would have been an obvious modification to Wong with the motivation of ensuring the accuracy of the model.

(CC) As per claims 39 and 43, Wong discloses a step of performing a quality check on the data to make sure that the prediction model is not unreasonably skewed due to imbalanced input information (col. 8 lines 23-35) and a step of updating the model by repeating the entire process of generating the model and probability to determine if other variables are better predictors (col. 15 lines 40-54).

(DD) Claims 40-42 and 44-46 repeat the same limitations as claims 2-4, and are therefore rejected for the same reasons given for those claims, and incorporated herein.

(EE) As per claim 47, Wong discloses a step of performing a quality check on the data to make sure that the prediction model is not unreasonably skewed due to imbalanced input information (col. 8 lines 23-35) and a step of updating the model by repeating the entire process of generating the model and probability to determine if other variables are better predictors (col. 15 lines 40-54). Although Wong fails to expressly recite comparing the calculated burden of illness against healthcare utilization for a known



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target period, it is respectfully submitted that typically in model generation, the model is compared with a baseline to determine if the model is correct. Thus, the skilled artisan would have found it an obvious modification within the method of Wong to include calibrating the model with the motivation of ensuring the accuracy of the model.

9. Claims 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wong et al. (5,976,082) and Simpson (6,266,645) as applied to claim 1, and further in view of Mohlenbrock et al. (5,018,067).

(A) As per claim 22, the teachings of Wong in the rejections above are incorporated herein.

Wong fails to teach the predetermined weight factor being adjusted based on the presence of a co-morbidity for the group or complication for the group of claims.

Mohlenbrock discloses the weights assigned to diagnostic codes which have a cc status, wherein cc relates to complication or co-morbidity (col. 13 lines 10-66).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the aforementioned features of Mohlenbrock within the method of Wong with the motivation of considering the severity of illness of patients (Mohlenbrock; col. 13 lines 55-61).

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10. Claims 33-34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wong et al. (5,976,082) and Simpson (6,266,645) as applied to claim 1, and further in view of Lockwood (5,706,441).

(A) As per claims 33-34, the teachings of Wong in the rejections above are incorporated herein.

Wong fails to expressly disclose calculating a relative risk for the member of a group by dividing the score by an average score for the group or by dividing the score by an average score for a benchmark group.

Lockwood discloses comparing the severity scores for sickness episodes against benchmarks by dividing the scores with the benchmarks and comparing a score by the average score for a group (col. 11 line 44 to col. 13 line 41).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Lockwood within the method of Wong with the motivation of identifying and assessing high risk patients (Wong; col. 2 lines 38-45).

### ***Response to Arguments***

11. Applicant's arguments filed 22 February 2005 have been fully considered but they are not persuasive. Applicant's arguments will be addressed below in the order in which they appear in the response filed 22 February 2005.

(A) At pages 9-10 of the response filed 22 February 2005, Applicant argues that Wong does not disclose "a plurality of scores... for each of a plurality of members in a health plan." Applicant argues that Wong only analyzes a subset of the members in a health plan.

In response, the Examiner respectfully submits that the Simpson reference was relied on for this newly added feature. However, the Examiner also notes that Applicant appears to differentiate the claimed invention from Wong based on Wong's discussion of analyzing a subset of data. At pages 6-7, and 9 of the Applicant's specification, it appears that Applicant is analyzing a specific type of claim which would be a subset of the entire set of claims. Further, Applicant discusses analyzing claims from a base period. See page 4 of Applicant's specification. It appears that a base period is not the entire set of claims for a particular health plan. This base period of claims would constitute a "sub-set of claims." Thus, Applicant's arguments with regards to the Wong reference are not persuasive.

Applicant also argues that Wong does not disclose predicting a consumption level of healthcare resources. Examiner notes that this limitation is in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). Here, there is no relationship between the preamble reciting "predicting

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a level of consumption of healthcare resources” and the steps in the body of the claim relating to calculating a score. There is no indication within claim 1 as to how the score is used to predict a level of consumption of healthcare resources. Further, the Examiner respectfully submits that Wong’s disclosure of “resulting in substantial use of health care resources (e.g., funds) (col. 5 lines 18-25 and page 10 of Applicant’s remarks filed on February 22, 2005) is an example of a level of consumption of healthcare resources (i.e., a dollar amount indicates the level of consumption of health care resources – the higher the dollar amount, the greater the consumption of health care resources).

(B) At pages 10-11 of the response filed 22 February 2005, Applicant argues the features of claim 48 are not taught by the applied reference.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., computing a score and predicting a consumption using that score) are not recited in the rejected claim 48. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Further, Whiting-O’Keefe teaches estimating the charges for treating an illness using multiple linear regression, wherein the act of estimating comprises estimating a burden of illness for each patient based on the forms and other variables to calculate the charges (Abstract; Fig. 8, col. 2 lines 22-30, col. 13 line 52 to col. 14 line 67); and

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using the values to estimate the likely charges (expenditure of resources) for treating a given patient in order to improve the efficiency of the healthcare provider (Abstract; col. 1 line 55 to col. 2 line 8, col. 2 lines 22-30, col. 13 line 52 to col. 14 line 67). Further, Whiting-O'Keefe teaches computing charges for sub-illnesses and primary illnesses (col. 11 lines 1-45). These are also considered to be forms of a score and a consumption. The Examiner respectfully submits that this disclosure teaches the elements of claims 48 and 49, and thus the rejection is maintained.

### ***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure. The cited but not applied prior art teaches healthcare management system and method of predicting high utilizers of healthcare services (US 2003/0195772).

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carolyn Bleck whose telephone number is (571) 272-6767. The Examiner can normally be reached on Monday-Thursday, 8:00am – 5:30pm, and from 8:30am – 5:00pm on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Thomas can be reached at (571) 272-6776.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**14. Any response to this action should be mailed to:**

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**Or faxed to:**

(703) 872-9306 or (703) 872-9326 [Official communications]


(703) 872-9327 [After Final communications labeled "Box AF"]

(571) 273-6767 [Informal/ Draft communications, labeled  
"PROPOSED" or "DRAFT"]

Hand-delivered responses should be brought to the Knox Building, Alexandria, VA.



CB  
May 12, 2005

  
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